# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

## TIME SCHEDULE ORDER NO. R2-2003-0006 FOR

EAST BAY DISCHARGERS AUTHORITY, ORO LOMA SANITARY DISTRICT AND CASTRO VALLEY SANITARY DITRICT.

ALAMEDA COUNTY, TO UPGRADE ITS WASTEWATER TREATMENT FACILITY TO

MEET SECONDARY LEVEL TREATMENT AT THE FACILITY'S DESIGN HYDRAULIC CAPACITY OF 20 MGD AVERAGE DAILY DRY WEATHER FLOW

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter "Board") finds that:

## **Background**

- The Oro Loma Sanitary District (OLSD) and Castro Valley Sanitary District (CVSD) jointly own a
  sewage treatment plant, located at 2600 Grant Avenue, San Lorenzo in Alameda County, which is
  operated by OLSD. OLSD and CVSD are the members of East Bay Dischargers Authority (EBDA),
  a joint exercise of powers agency. EBDA, OLSD and CVSD are hereafter collectively called the
  Discharger.
- 2. EBDA is jointly owned and operated under a Joint Exercise of Powers Agreement (JPA) comprised of the City of Hayward, City of San Leandro, Union Sanitary District, OLSD and CVSD. Each member agency individually owns and operates its collection system and wastewater treatment facility. EBDA combines and transports the treated wastewaters from its member agencies to its dechlorination station near the San Leandro Marina (Marina Dechlorination Facility) and thence to its combined deepwater outfall, E-1, in Lower San Francisco Bay, west of the Oakland Airport.
- 3. On August 16, 2000, the Board adopted waste discharge requirements for EBDA and its member agencies, to discharge treated wastewater to the waters of the State and the United States through a combined outfall (E-1) jointly owned by members of EBDA and Livermore-Amador Valley Water Management Agency (LAVWMA) under National Pollutant Discharge Elimination System (NPDES) permit (NPDES Permit No. CA0037869) in Order No. 00-087.

## **OLSD and CVSD Treatment Plant Capacity**

- 4. The OLSD and CVSD's treatment plant has a permitted average daily dry weather treatment capacity of 20 million gallons per day (mgd) in its current NPDES permit in Order No. 00-087. The OLSD and CVSD treatment plant is currently operated under an average daily dry weather flow (ADWF) of 14 to 15 mgd.
- 5. The OLSD and CVSD treatment plant's design was completed in March 1967 as an activated sludge secondary treatment plant designed to treat an ADWF of 20 mgd with a 5-day biochemical oxygen

- demand (BOD<sub>5</sub>) removal rate of 76% with no identified percent removal rate for Total Suspended Solids (TSS). This information was provided to the Board on February 4, 2000 during its permit renewal. The Plant began operation in 1968 treating an initial ADWF of 8 to 10 mgd in full compliance with its discharge permit.
- 6. The 1972 CWA requires that each Publicly Owned Treatment Work (POTW) achieve secondary level treatment no later than July 1, 1977 [33U.S.C. 1311(b)(1)(B)]. These secondary treatment standards are defined as treatment that consistently achieves specified BOD<sub>5</sub>, pH and TSS effluent limits. These secondary effluent standards are specified in 40CFR Part 133. One of the Clean Water Act requirements for secondary treatment is the achievement of a BOD<sub>5</sub> and TSS removal efficiency of 85%.
- 7. In 1974 and 1975, the California State Water Resources Control Board (State Board) reviewed a Clean Water Grant application for the formation of the East Bay Dischargers Authority. As a part of that process, State Board approved certain capital improvement projects for the OLSD and CVSD treatment plant and authorized the plant to continue to operate up to an ADWF of 14.9 mgd without further modifications.
- 8. The EBDA system was completed in 1978 and created a 15 mile force main system to accept the effluent from four plants owned by EBDA member agencies and discharging a dechlorinated combined effluent through a combined outfall into the deep waters of the San Francisco Bay between the San Mateo Bridge and the Bay Bridge. In 1979, the Board issued EBDA a joint NPDES Permit, which applied to EBDA's each member agency and established the compliance point for BOD<sub>5</sub>, TSS and other constituents at the combined outfall. The combined effluent compliance point has remained in all subsequent NPDES permits issued by the Board. The Board determined that compliance at the combined outfall was acceptable in consideration of the authority EBDA had over its members to ensure compliance at each treatment plant.
- 9. For the period from January 1999 to June 2002, OLSD and CVSD treatment plant had the following exceedences: eleven (11) TSS, fourteen (14) settleable solids, four (4) BOD<sub>5</sub> and four (4) 85 percent removal rate at the treatment plant outfall. Those exceedances were not considered as violations of the permit under Order No. 00-087 because the compliance point was at EBDA's combined outfall. The combined effluent was in compliance with the effluent limitations.
- 10. In 1999, the OLSD and CVSD Districts hired outside consultants to evaluate plant capacity. At the same time, OLSD and CVSD staff initiated a change in the aeration section of the secondary treatment process to an altered regimen called "anaerobic selector." This short-term fix improved the activated sludge stability and effluent quality.
- 11. Based on subsequent analysis by three consulting engineering firms in 1999 and 2000 and operating experience it has been determined that the OLSD and CVSD treatment plant's secondary process is sufficient to reliably treat 15.0 mgd ADWF to achieve the 85% removal requirement for BOD<sub>5</sub> and TSS as established by the Clean Water Act.

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12. In September 2002, Board staff, U. S. EPA Region 9, OLSD and EBDA met to discuss the TSS and BOD<sub>5</sub> exceedances. OLSD agreed to fully restore the plant's treatment capacity to its original design capacity of 20 mgd of ADWF in full compliance with the CWA standards. Until that is done, the Board will cap the permitted dry weather flow for the OLSD and CVSD treatment plant at 15 mgd (ADWF). This cap will be implemented through an amendment of Order No. 00-087, or when the permit is up for reissuance in 2005. The Board may increase the ADWF up to 20 mgd as specific improvements are completed to increase the facility's ADWF capacity. This will be determined through review of the semi-annual reports submitted by the Discharger as described below.

## **Authority and Basis for Time Schedule Order**

- 13. Section 13300 of the California Water Code authorizes the Board to issue a time schedule when it finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the Board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity. The Board may require Discharger to submit detailed time schedule of specific actions that the Discharger shall take in order to correct or prevent a violation of requirements.
- 14. The OLSD and CVSD treatment plant is unable to achieve secondary treatment and the secondary effluent limits for conventional pollutants at its treatment plant effluent, or E-2 when the plant is operated at full capacity of 20 mgd ADWF. Plant upgrades are necessary to achieve future compliance of secondary treatment requirements. This Order establishes a five and half year compliance schedule. This is to allow the Discharger to complete necessary actions to upgrade the plant to achieve secondary level treatment as required by CWA.
- 15. The OLSD and CVSD propose a five and half year schedule from start of master planning to full compliance with secondary treatment standards under ADWF of 20 mgd. Based on the scope of design and construction, the Discharger will need to apply for State Revolving Fund loan. The State Revolving Fund loan application process is a multiple layer process, which can be time consuming. Because this is a rehabilitation project, it will also be necessary to keep the existing facilities fully operational during the construction of the new treatment units. Therefore, the project may be more time consuming than construction of a new facility. The Board finds that the proposed schedule incorporated into this Order is reasonably generous in consideration of these factors and should be achievable.

#### **CEQA and Public Notice**

- 16. This action is an enforcement action and, as such is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.) in accordance with section 15321, Title 14, California Code of Regulations.
- 17. The Board has notified the Discharger and interested persons of its intent under California Water Code section 13300 to consider the adoption of a Time Schedule Order for the discharge, and has provided them with an opportunity to submit written comments and appear at the public hearing. Responses to written comments are hereby incorporated by reference as part of this Order.
- 18. The Board, in a public hearing, heard and considered all comments pertaining to this Order.

**IT IS HEREBY ORDERED** that, in accordance with section 13300 of the California Water Code, the Discharger shall comply with the time schedule and other provisions specified below:

1. The Discharger shall modify and upgrade the OLSD and CVSD treatment plant to achieve secondary level treatment for 20 mgd of ADWF in accordance with the following tasks and schedule:

Tasks	Deadline to Complete the Task
(1) Complete design constructability review,	January 31, 2004
preparation of plans and specifications and bid	
package. Submit plans for approval to the State	
Revolving Loan Fund	
(2) Advertise construction contract for public	February 28, 2005
bidding	
(3) Award construction contract	May 1, 2005
(4) Submit Plant Operations and Testing Plan to	July 31, 2007
Regional Board	
(5) Complete construction	November 1, 2007
(6) Achieve full compliance with federal	July 1, 2008
secondary treatment standards at the OLSD and	
CVSD treatment plant by submitting a	
certification by registered engineer that the plant	
meets secondary treatment at 20 mgd of ADWF	

- 2. The OLSD and CVSD shall submit semi-annual progress reports to describe the progress of the activities to fulfill the above requirements. Progress reports shall be submitted on February 1 and August 1 of each year with the first report due on August 1, 2003 until the requirements have been fulfilled.
- 3. If the Discharger is delayed, interrupted, or prevented from meeting one or more of the time schedules in this Order due to circumstances beyond its reasonable control, the Discharger shall promptly notify the Executive Officer with adequate justification. In the event of such delays, the Board may consider modification of the time schedules established in this Order.
- 4. If the Discharger fails to comply with the provisions of this Order, the Executive Officer is authorized to take further enforcement action, or to request the Attorney General to take appropriate actions against the Discharger, in accordance with sections 13331, 13350, 13385, and 13386 of the California Water Code. This shall include injunctive and civil remedies, if appropriate, or the issuance of an Administrative Civil Liability Complaint for Board consideration.
- 5. The Discharger shall maintain a copy of this Order at its facility so as to be available at all times to facility operating personnel.
- 6. This Order shall be effective on the date of adoption.

Oro Loma/Castro Valley Sanitary Districts TSO No. R2-2003-0006

I, Loretta K. Barsamian, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 22, 2003.

LORETTA K. BARSAMIAN Executive Officer